

Appln. No.: 09/754,988

Art Unit: 1714

Page 2

**Amendments to the claims** are reflected in the listing of claims which begins on page 3 of this paper.

**Remarks/Arguments** begin of page 8 of this paper.

Appln. No.: 09/754,988

Art Unit: 1714

Page 3

Amendments to the Claims

1. (Currently amended) A method of making a the modified pigment of claim 30 comprising reacting a pigment having attached a first chemical group with a second chemical group and then further reacting with an acylating agent to form said modified pigment having attached a third chemical at least one organic group, wherein the second chemical group reacts with the first chemical group and is then further reacted with an acylating agent to form the third chemical organic group, and said first chemical group comprises at least one electrophile and said second chemical group comprises at least one nucleophile nucleophilic polymer, or vice versa, wherein said pigment having attached a first chemical group is prepared by reacting a diazonium salt having the first chemical group with at least one type of pigment to form said pigment having attached a first chemical group, and wherein the first chemical group, the second chemical group, and the third chemical group each comprises at least one organic group electrophile selected from the group consisting of: acyl azides, isocyanates, ketones, aldehydes, anhydrides, amides, imides, imines,  $\alpha,\beta$ -unsaturated ketones and aldehydes, alkyl halides, epoxides, alkyl sulfonates and sulfates, amines, hydrazines, thiols, hydrazides, oximes, carbanions, aromatic compounds which undergo addition-elimination reactions, and salts and derivatives thereof.

2-4. (Cancelled)

5. (Previously amended) The method of claim 1, wherein the first chemical group comprises an alkylsulfate group.

6. (Original) The method of claim 1, wherein the first chemical group comprises a (2-sulfatoethyl)-sulphone group.

Appln. No.: 09/754,988

Art Unit: 1714

Page 4

7. (Original) The method of claim 6, wherein the first chemical group is phenyl-(2-sulfatoethyl)-sulphone.

8. (Cancelled)

9. (Currently amended) The method of claim 8, wherein the nucleophilic polymer is selected from the group consisting of: a polyamine, a polyalkylene oxide, a polyol, a polyacrylate, and salts and derivatives thereof.

10. (Currently amended) The method of claim 9, wherein the nucleophilic polymer is a polyamine.

11. (Currently amended) The method of claim 10, wherein the nucleophilic polymer is polyethyleneimine.

12. (Original) The method of claim 1, wherein said pigment is carbon black.

13. (Currently Amended) The method of claim 1, wherein said pigment comprises a blue pigment, black pigment, brown pigment, cyan pigment, green pigment, white pigment, violet pigment, magenta pigment, red pigment, yellow pigment, or mixtures thereof.

14. (Currently amended) The method of claim 1, further comprising reacting said third chemical organic group attached onto said pigment with at least one additional second chemical group, wherein the additional second chemical group comprises at least one electrophile and the third chemical organic group comprises at least one nucleophile, or vice versa.

15. (Currently amended) The method of claim 14, wherein the additional second chemical group comprises a carboxylic acid group, [a] an acid chloride group, or an anhydride group.

Appln. No.: 09/754,988

Art Unit: 1714

Page 5

16. (Original) The method of claim 14, wherein the additional second chemical group comprises a polymer.

17. (Previously amended) The method of claim 16, wherein the polymer is selected from the group consisting of: a polyamine, a polyol, a polyalkylene glycol, a polyacrylate, a protein, a polyamino acid, and salts and derivatives thereof.

18. (Original) The method of claim 16, wherein the polymer is a polyacrylate or methacrylate.

19-20. (Cancelled)

21. (Currently amended) A modified pigment comprising a pigment having attached at least one organic group of claim 30, wherein said organic group comprises: the reaction product of at least one (2-sulfatoethyl)-sulphone group and at least one nucleophilic polymer which is then further reacted with an acylating agent.

22. (Original) The modified pigment of claim 21, wherein the organic group is directly attached to the pigment.

23. (Original) The modified pigment of claim 21, wherein the (2-sulfatoethyl)-sulphone group is phenyl-(2-sulfatoethyl)-sulphone.

24. (Original) The modified pigment of claim 21, wherein said nucleophilic polymer is a poly(vinyl alcohol), polyalkylene glycol, polyamine, or combinations thereof.

25. (Original) The modified pigment of claim 21, wherein the nucleophilic polymer is polyethyleneimine or derivatives or salts thereof.

Appln. No.: 09/754,988

Art Unit: 1714

Page 6

26-29. (Cancelled)

30. (Previously amended) A modified pigment comprising a pigment having attached at least one organic group, wherein said organic group comprises: the reaction product of at least one electrophile and a nucleophilic polymer which is then further reacted with an acylating agent, wherein the organic group is attached by reacting a diazonium salt having the electrophile with at least one type of pigment and wherein the electrophile is selected from the group consisting of: acyl azides, isocyanates, ketones, aldehydes, anhydrides, amides, imides, imines,  $\alpha,\beta$ -unsaturated ketones and aldehydes, alkyl halides, epoxides, alkyl sulfonates and sulfates, aromatic compounds which undergo addition-elimination reactions, and salts and derivatives thereof.

31. (Original) The modified pigment of claim 30, wherein the nucleophilic polymer is a poly(vinyl alcohol), a polyalkylene oxide, a polyamine, or combinations thereof.

32. (Original) The modified pigment of claim 30, wherein the nucleophilic polymer is polyethyleneimine or derivatives or salts thereof.

33. (Original) The modified pigment of claim 30, wherein the acylating agent is succinic anhydride or polyacrylic acid.

34. (Currently amended) ~~An ink composition comprising a liquid vehicle and a modified pigment of claim 38,~~ wherein the modified pigment comprises a pigment having attached at least one organic group, wherein said organic group comprises: the reaction product of at least one (2-sulfatoethyl)-sulphone group and at least one nucleophilic polymer which is then further reacted with an acylating agent.

Appln. No.: 09/754,988

Art Unit: 1714

Page 7

35. (Original) The ink composition of claim 34, wherein the ink composition is an inkjet ink composition.

36-37. (Cancelled)

38. (Previously amended) An ink composition comprising a liquid vehicle and a modified pigment, wherein the modified pigment comprises a pigment having attached at least one organic group, wherein said organic group comprises: the reaction product of at least one electrophile and a nucleophilic polymer which is then further reacted with an acylating agent, wherein the organic group is attached by reacting a diazonium salt having the electrophile with at least one type of pigment and wherein the electrophile is selected from the group consisting of: acyl azides, isocyanates, ketones, aldehydes, anhydrides, amides, imides, imines,  $\alpha,\beta$ -unsaturated ketones and aldehydes, alkyl halides, epoxides, alkyl sulfonates and sulfates, aromatic compounds which undergo addition-elimination reactions, and salts and derivatives thereof.

39. (Original) The ink composition of claim 38, wherein the ink composition is an inkjet ink composition.

40-42. (Cancelled)